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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/937,883	09/25/1997	SHIMON GRUPER	COLB-0083	2262

20741 7590 06/05/2003
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EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2127

32

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/937,883

Applicant(s)

GRUPER ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19 and 21-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19 and 21-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 1997 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to paper number 31, Amendment/Response, filed on 2/25/03.

Arguments were considered but were not found to be persuasive.

2. Claims 19 and 21-35 are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 19 is rejected under 35 U.S.C. 102(b) as being unpatentable over Jablon et al. (hereinafter Jablon) (US 5,421,006).

Referring to claim 19, Jablon teaches an apparatus for ensuring the integrity of an application executed on a computer (*see Title*) having data storage arranged sectorwise (*i.e.*, “*disk*”), comprising:

- apparatus for learning about the normal behavior of said application to said data storage arranged sectorwise by monitoring accesses of said application to elements of said data storage during a limited period (“*device*”, “*assessing the integrity*”, “*prevents execution*”

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of corrupted programs at time of system initialization”, “programs and data”, see

Abstract. It is inherent that data storage is arranged sectorwise in memory.);

- an enforcement device, operative after said period is over, for identifying and preventing said application from accessing elements of data storage that do not correspond with the normal behavior of said application (“*verify the integrity*”, “*sets a hardware latch to protect the codes in the non-volatile memory from being overwritten by subsequent untrusted programs*”, “*Damage*”, “*virus and Trojan horse attacks is prevented*”, see *Abstract*, and “*if an integrity violation is detected, the second program is not run*”, “*closes the latch to prevent verification data in the non-volatile memory from being modified by subsequent programs*”, col. 8, lines 39-59 and col. 10, lines 46-52).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jablon et al. (hereinafter Jablon) (US 5,421,006).

Referring to claim 21, Jablon teaches an apparatus wherein said enforcement device is operative to prompt a user to give specific permission, upon occurrence of an attempt of the

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program to access files not accessed during said learning period. Jablon discloses that the user is warned if there is a problem with data integrity (*col. 8, line 52*). The user gives authentication data, such as a password to login. Permission is granted when successful login occurs. User login is necessary to close the latch to protect data from being modified or read by any subsequent program (*col. 9, lines 48-54, and col. 20, lines 32-40*). Jablon fails to explicitly teach that the verification data for each program is stored in a file and that file is accessed for verification. However, "Official Notice" is taken that both the concept and advantages of providing that data can be stored in a file is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a file that contained the verification data of each program to the existing system of Jablon for the reason of increasing organization of the program by keeping the verification information for a particular program in one area. It makes it simpler for the respective program to access the information.

Referring to claim 23, Jablon teaches an apparatus wherein said enforcement device is based at least partly on instances of specific permission being given by the user to the program to access certain files, wherein the enforcement device treats attempts of the program to access files to which the user permitted access during said learning period more leniently than attempts of the program to access files to which the user did not permit access during said learning period. It is rejected for the same reasons as stated in the rejection of claim 21. There is definitely more leniency to access files with user permission (successful username/password login). There is no leniency without permission.

Referring to claims 22 and 24, Jablon teaches an apparatus for ensuring the integrity of a computer application to be run in association with a computer having data storage arranged sectorwise (*i.e.* “*disk*”) in a storage device, comprising:

- apparatus for assigning a general enforcement file to each new program;
- apparatus for learning about the program by monitoring the program of said data storage, by monitoring the program's attempts to make file accesses during a learning period;
- an enforcement device operative, after said learning period is over, to treat attempts of the program to access files accessed during said learning period more leniently than attempts of the program to access files not accessed during said learning period; said enforcement device is based at least on instances of specific permission being given by the user to said application to access locations of said data storage, wherein said enforcement device treats attempts of said application to access locations of said data storage to which the user has permitted to access during said learning period more leniently than attempts of the program to access files to which the user did not permit access during said learning period.

Jablon teaches that the integrity of each program must be verified before the latch mechanism opens the latch and the memory is readable and writable (*col. 8, lines 39-59*). The “learning period” occurs at this time. Jablon fails to explicitly teach that the verification data for each program is stored in a file. However, “Official Notice” is taken that both the concept and advantages of providing that data can be stored in a file is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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include a file that contained the verification data of each program to the existing system of Jablon for the reason of increasing organization of the program by keeping the verification information for a particular program in one area. It makes it simpler for the respective program to access the information.

Referring to claim 25, it is rejected for the same reasons as stated in the rejection of claim 24.

Referring to claim 26-28, Jablon teaches a method further comprising enabling the user of said first application to determine said normal behavior during said learning period. The user determines the normal behavior through the integrity verification process (*col. 8, lines 39-59*).

Referring to claim 29-34, Jablon teaches a method further comprising detecting attempts of a daughter or second application of said first application to access elements of data storage that do not correspond to said normal behavior as determined by said enforcement file and inhibiting said accesses, thereby preventing the damage thereupon. It is rejected for the same reasons as stated in the rejection of claims 22 and 24. In addition, Jablon discloses that the system loads a second program only after the first program passes the verification of data integrity (*col. 8, lines 39-59*).

ARGUMENTS

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5. Applicant argues on page 7, #1 that Jablon doesn't use a learning process, i.e., a process on which the normal access behavior of the application is characterized. In response, Examiner respectfully disagrees. Jablon teaches uses integrity (*see Abstract*) to identify normal behavior.

6. Applicant argues on page 7, #2 that in the present invention the target program is never examined in relation to verification data. In response, Applicant does not mention in the specification or claims that verification data with respect to the target program cannot be used. Jablon teaches the claimed invention in addition to a relationship between the program and verifying data.

7. Applicant argues on page 7, #3 that Jablon doesn't examine the behavior of the program, but the content of the program's file(s). Thus, while Jablon examines if the program was changed, the present invention examines its behavior. The present invention does not deal with indicating if a program was altered, but with indicating if the program's behavior is unexpected over what is considered as normal. In response, Examiner respectfully disagrees. As stated by the Applicant, Jablon indicates behavior such as if a program was altered or changed from what was normal or initial.

8. In response to applicant's argument (page 7, #4) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the present invention examines its consequences during its execution", "the present invention prevents the damage thereof, not its execution") are not recited in the rejected claim(s).

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Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. Applicant argues on page 7, #5 that the present invention makes use only of software methods, not hardware methods. In response, Jablon also teaches the use of software methods (*see title*).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 9:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is none.

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May 7, 2003


MAJID A. BANANKHAH
PRIMARY EXAMINER